

AMENDMENTS TO THE CLAIMS

1-29. (Cancelled)

30. (New) A method of scheduling a plurality of components to be performed by a computing device, each component including a plurality of actions suitable for non-preemptive execution by the computing device, and each action having a scheduled start time, said method comprising:

determining an earliest start time of the scheduled start times;
identifying an earliest component having the earliest action with the earliest start time;
executing a first action of the plurality of actions from the identified earliest component to completion without preemption;
obtaining a returned event from said executed action in accordance with said executing; and
propagating said returned event to a second action from dependent components of the earliest component.

31. (New) A method according to claim 30 wherein the plurality of components each have a unique identifier, and wherein a plurality of components each have the earliest start time, the act of identifying the earliest component comprising selecting the earliest component from the plurality of components having the earliest start time based on the unique identifiers.

32. (New) A method according to claim 30 wherein the first action is selected based on a predefined preference associated with the first action.

33. (New) A method according to claim 30, further comprising:
dividing at least one of said components into said plurality of actions, wherein each of said plurality of actions are suitable for non-preemptive execution.

34. (New) A method according to claim 30, further comprising:
receiving an interrupt after the act of identifying an earliest start time and before the act of executing, and in accordance therewith serving said interrupt and then performing again the act of identifying the earliest start time, wherein said interrupt corresponds to one of a shell command and a connection request.

35. (New) A method according to claim 30, further comprising:
receiving an interrupt after the act of identifying an earliest component and before the act of executing, and in accordance therewith identifying a component corresponding to said interrupt and a reactive action therein, and in accordance therewith executing said reactive action instead of the identified earliest action, wherein said interrupt corresponds to an alert input.

36. (New) A method according to claim 30, further comprising:
receiving an interrupt after the act of identifying an earliest component and before the act of executing, and in accordance therewith serving said interrupt and then identifying a component corresponding to said interrupt and a reactive action therein, and in accordance therewith executing said reactive action instead of the identified first action, wherein said interrupt corresponds to one of a hardware interrupt having an interrupt service routine and a software interrupt having said interrupt service routine.

37. (New) A method according to claim 30, wherein each component of said plurality of components further includes a plurality of states, and the method further comprising:
updating one or more state of said plurality of states related to the earliest component, after said propagating.

38. (New) A computer-readable medium encoded with a computer program code for scheduling a plurality of components to be performed by a computing device, each component having a scheduled start time, and each component including a plurality of actions suitable for non-preemptive execution by the computing device, the program code causing the computing device to execute a method comprising:
determining an earliest start time of the scheduled start times;
identifying an earliest component having the earliest start time;
executing a first action of the plurality of actions from the identified earliest component to completion without preemption;
obtaining a returned event from said executed action in accordance with said executing; and
propagating said returned event to a second action from the earliest component..

39. (New) A computer program product according to claim 38 wherein the plurality of components each have a unique identifier, and wherein a plurality of components each have the earliest start time, the act of identifying the earliest component comprising selecting the earliest component from the plurality of components having the earliest start time based on the unique identifiers.

40. (New) A computer program product according to claim 38 wherein the first action is selected based on a predefined preference associated with the first action.

41. (New) A computer program product according to claim 38, the method further comprising:
dividing at least one of said components into said plurality of actions, wherein each of said plurality of actions are suitable for non-preemptive execution.

42. (New) A computer program product according to claim 38, the method further comprising:
receiving an interrupt after the act of identifying an earliest start time and before the act of executing, and in accordance therewith serving said interrupt and then performing again the act of identifying the earliest start time, wherein said interrupt corresponds to one of a shell command and a connection request.

43. (New) A computer program product according to claim 38, the method further comprising:
receiving an interrupt after the act of identifying an earliest component and before the act of executing, and in accordance therewith identifying a component corresponding to said interrupt and a reactive action therein, and in accordance therewith executing said reactive action instead of the identified earliest action, wherein said interrupt corresponds to an alert input.

44. (New) A computer program product according to claim 38, the method further comprising:
receiving an interrupt after the act of identifying an earliest component and before the act of executing, and in accordance therewith serving said interrupt and then identifying a component corresponding to said interrupt and a reactive action therein, and in accordance therewith executing said reactive action instead of the identified first action, wherein said interrupt corresponds to one of a hardware interrupt having an interrupt service routine and a software interrupt having said interrupt service routine.

45. (New) A computer program product according to claim 38, wherein each component of said plurality of components further includes a plurality of states, and the method further comprising:

updating one or more state of said plurality of states related to the earliest component, after said propagating.

46. (New) A system for scheduling a plurality of components, the system comprising:
a computing device configured to receive a plurality of components, each component having a scheduled start time and each component including a plurality of actions suitable for non-preemptive execution by the computing device; and

a scheduling program in communication with the computing device, the scheduling program configured to:

determine an earliest start time of the scheduled start times;
identify an earliest component having the earliest start time;
select for execution by the computing device, without preemption, a first action of the plurality of actions from the identified earliest component;
obtain a returned event from said executed action; and
propagate said returned event to a second action from the earliest component.

47. (New) A system according to claim 46 wherein the plurality of components each have a unique identifier, and wherein a plurality of components each have the earliest start time, the act of identifying the earliest component comprising selecting the earliest component from the plurality of components having the earliest start time based on the unique identifiers.

48. (New) A system according to claim 46 wherein the scheduling program selects the first action based on a predefined preference associated with the first action.

49. (New) A system according to claim 46, wherein the scheduling program is further configured to:

divide at least one of said components into said plurality of actions, wherein each of said plurality of actions are suitable for non-preemptive execution.

50. (New) A system according to claim 46, wherein the scheduling program is configured to receive an interrupt, and if the interrupt is received after the identification of the earliest start time and before the selection for execution, the scheduling program is configured to select the interrupt for execution and then again identify the earliest start time, wherein said interrupt corresponds to one of a shell command and a connection request.

51. (New) A system according to claim 46, wherein each component of said plurality of components further includes a plurality of states, and computing device further configured to:

update one or more state of said plurality of states related to the earliest component, after said propagating.